Met Office

NEWS

2019: close to record-breaking year

Author: Press Office
16:52 (UTC) on Thu 20 Dec 2018

The Met Office global temperature forecast suggests that 2019 will be close to record warmth due to climate change and the added effect of El Niño-related warming in the Pacific.

The Met Office global temperature forecast suggests that 2019 will be close to record warmth due to climate change and the added effect of El Niño-related warming in the Pacific.

The Met Office forecasts the global average temperature for 2019 to be between 0.98 °C and 1.22 °C, with a central estimate of 1.10 °C, above the pre-industrial average period from 1850–1900. Since 1850, 2016 is the warmest year on record with a central estimate of 1.15 °C above the same baseline.

Modest warming from El Niño combined with much larger effects due to rising levels of greenhouse gases are driving the 2019 temperature forecast. Professor Adam Scaife, head of long-range prediction at the Met Office, said: “Our forecasts suggest that by the end of 2019, 19 of the 20 warmest years on record will have occurred since the year 2000.
The forecast is based on the key drivers of the global climate, but it does not include unpredictable events, such as a large volcanic eruption, which would cause a temporary cooling.

The Met Office’s forecast for the 2018 global mean temperature, issued at the end of 2017 (0.88 °C to 1.12 °C with a central estimate of 1.00 °C), agrees closely with the latest observations of global temperature so far this year. Data from Jan-Oct 2018 shows the global mean temperature is 0.96±0.12 °C above pre-industrial levels.

Dr Doug Smith, Met Office research fellow, said: “The forecast for 2019 would place next year amongst the five warmest years on record, which would all have occurred since 2015. All of these years have been around 1 °C warmer than the pre-industrial period”.

Table 1: average global temperature (using NOAA, NASA and HadCRUT4 data sets) since 1989 relative to various baselines.

Year	1850-1900 pre-industrial baseline (°C)	1961-1990 average °C	1981-2010 average °C
2018 (Jan-Oct)	0.96±0.12	0.66±0.12	0.35±0.09
2017	1.04±0.10	0.73±0.09	0.43±0.08

Year	1850-1900 pre-industrial baseline (°C)	1961-1990 average °C	1981-2010 average °C
2016	1.15±0.10	0.84±0.09	0.53±0.08
2015	1.08±0.10	0.77±0.09	0.46±0.08
2014	0.92±0.10	0.61±0.09	0.30±0.08
2013	0.84±0.10	0.54±0.09	0.23±0.08
2012	0.80±0.10	0.50±0.09	0.19±0.08
2011	0.76±0.10	0.46±0.09	0.15±0.08
2010	0.88±0.10	0.58±0.09	0.27±0.08
2009	0.82±0.10	0.52±0.09	0.21±0.08
2008	0.72±0.10	0.41±0.09	0.10±0.08
2007	0.82±0.10	0.51±0.09	0.20±0.08
2006	0.81±0.10	0.50±0.09	0.20±0.08
2005	0.86±0.10	0.55±0.09	0.24±0.08
2004	0.75±0.10	0.45±0.09	0.14±0.08
2003	0.81±0.10	0.50±0.09	0.19±0.08
2002	0.81±0.10	0.50±0.09	0.19±0.08
2001	0.74±0.10	0.43±0.09	0.13±0.08
2000	0.61±0.10	0.30±0.09	-0.01±0.08
1999	0.61±0.10	0.31±0.09	0.00±0.08
1998	0.83±0.10	0.53±0.09	0.22±0.08
1997	0.69±0.10	0.38±0.09	0.08±0.08
1996	0.51±0.10	0.21±0.09	-0.10±0.08
1995	0.64±0.10	0.34±0.09	0.03±0.08
1994	0.52±0.10	0.21±0.09	-0.10±0.08
1993	0.45±0.10	0.15±0.09	-0.16±0.08
1992	0.42±0.10	0.12±0.09	-0.19±0.08
1991	0.59±0.10	0.28±0.09	-0.03±0.08

Year	1850-1900 pre-industrial baseline (°C)	1961-1990 average °C	1981-2010 average °C
1990	0.62±0.10	0.31±0.09	0.01±0.08
1989	0.47±0.10	0.16±0.08	-0.15±0.08

Met Office
© Crown Copyright